~~AMENDED~~ CLAIMS

~~[received by the International Bureau on 17 January 1997 (17.01.97); original claims 1 - 13 replaced by amended claims 1 - 7 (1 page)]~~

1. A pharmaceutical composition for targeting double stranded nucleic acids, **characterized in** that it comprises an effective amount of a padlock probe oligonucleotide having two free nucleic acid end parts which are at least partially complementary to and capable of hybridizing with two at least substantially neighboring respective regions of a target nucleic acid sequence so that the padlock probe can be circularized by joining said free end parts and catenate with the target sequence for direct inhibition thereof.

2. A composition according to claim 1, in admixture with a suitable carrier.

3. A composition according to claim 1, also comprising a linking agent.

4. A composition according to claim 3, **wherein** linking agent is a ligase enzyme.

5. A composition according to claim 1, comprising mutually chemically reactive compounds at said end parts.

6. A composition according to any of claims 1-5, **wherein** said padlock probe comprises non-natural nucleic acids or polymers.

7. A composition for targeting nucleic acids, comprising an effective amount of a padlock probe having two free nucleic acid end parts which are at least partially complementary to and capable of hybridizing with two at least substantially neighboring respective regions of a target nucleic acid sequence so that it can be circularized and catenate with the target sequence, for use as a medicament.